REMARKS

Applicants thank Examiner Fetterolf for granting the December 27, 2006 telephonic interview to discuss the instant Office Action. Applicants also thank the Examiner for clarifying the rejections and for his guidance during the interview.

Claim Amendments

Applicants have amended claims 1, 3, 7 and 8 to replace the expression "CYP3A4" with the complete name of the variant cytochrome P450 3A4 monooxygenase gene. Further, Applicants have amended claim 1 to delete the GenBank accession number of the CYP3A4 polypeptide and to refer only to SEQ ID NOS: found in the subject application. Lastly, Applicants have amended claim 1 to more particularly point out and distinctly claim the subject matter of the present invention. Amended claim 1 recites "a variant human cytochrome P450 3A4 monooxygenase polypeptide or fragment thereof," "wherein said polypeptide has testosterone or progesterone hydroxylase activity, and wherein said polypeptide has an impaired expression and impaired testosterone or progesterone hydroxylase activity compared to the corresponding wild type human cytochrome P450 3A4 monooxygenase polypeptide."

Support for amended claim 1 may be found, *inter alia*, on page 2, paragraph 4 and page 46, Tables 5 and 6 of the originally filed specification. Support for amended claims 3, 7 and 8 may be found, *inter alia*, on page 2, paragraph 4 of the originally filed specification.

These claim amendments are made expressly without waiver of applicants' rights to file for and to obtain claims directed to the canceled or amended subject matter in this application or subsequent applications claiming benefit herefrom.

None of the above amendments adds new matter. Applicants request entry of the amendments and reconsideration of the claims. Upon entry of the amendments, claims 1, 3-8, 12, 13, 37, 39 and 40 will be pending in the application.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1, 3-8, 12, 13, 37, 39 and 40 stand rejected as "vague and indefinite" for using the term "CYP3A4" as the sole means of identifying the polypeptide referred to in the subject application. The Examiner acknowledges that "the specification refers to the sequence of CYP3A4 by GenBank accession number CYP3A4." However, the Examiner contends that different laboratories may use the same laboratory designation to define distinct molecules, and further, that accession numbers may be altered, deleted, amended, or revised over time by various inventors. The Examiner argues that use of the laboratory designation CYP3A4 thus renders the claims indefinite.

Pursuant to a telephone interview between the undersigned and Examiner Fetterolf on December 21, 2006, Applicants have amended claims 1, 3, 7 and 8 to replace the expression "CYP3A4" with the complete name of the variant cytochrome P450 3A4 monooxygenase gene. Further, Applicants have amended claim 1 to delete the GenBank accession number of the CYP3A4 polypeptide and to refer only to SEQ ID NOS: found in the subject application. The claims as amended do not use the expression "CYP3A4," nor the GenBank accession number of CYP3A4, to identify the polypeptide of the present invention. Accordingly, Applicants believe that amended claims 1, 3, 7 and 8 and dependent claims 4-6, 12,

13, 37, 39 and 40 are not indefinite. Applicants respectfully request that the Examiner reconsider and withdraw this objection.

Rejections under 35 U.S.C. § 102(e)

Claims 1, 4-7, 12, 13, 37, 39 and 40 stand rejected under 35 U.S.C. § 102(e) as "anticipated" by Larossa et al. (U.S. Patent No. 6,025,131) ("Larossa"). Claim 37 stands rejected under 35 U.S.C. § 102(e) as "anticipated" by Mittman et al. (U.S. Patent No. 6,821,724) ("Mittman"). The Examiner contends that Larossa teaches a polynucleotide encompassing the nucleotide sequence of SEQ ID NO: 90, as well as a vector comprising said polynucleotide, host cells comprising said vector, a nucleic acid molecule complementary to said polynucleotide, a diagnostic composition comprising said polynucleotide, and a method for producing cells comprising said polynucleotide. The Examiner further contends that Mittman refers to a nucleic acid probe that comprises the nucleotide sequence of SEQ ID NO: 90, or a complementary sequence thereof.

Without conceding the correctness of this rejection, Applicants have amended claim 1 to recite "a variant human cytochrome P450 3A4 monooxygenase polypeptide or fragment thereof," "wherein said polypeptide has testosterone or progesterone hydroxylase activity, and wherein said polypeptide has an impaired expression and impaired testosterone or progesterone hydroxylase activity compared to the corresponding wild type human cytochrome P450 3A4 monooxygenase polypeptide." The polynucleotide referred to in Larossa is derived from a 205 base pair sequence that borders a sulfometuron methyl (SM) responsive regulatory region in *E. coli*. The polynucleotide referred to in Mittman is a short nucleic acid sequence

complementary to a murine gene. One skilled in the art at the time the invention was made would not expect that either the *E. coli*-derived polynucleotide of Larossa or the murine-derived polynucleotide of Mittman would encode a variant human cytochrome P450 3A4 monooxygenase polypeptide or fragment thereof. Further, one skilled in the art would not expect that the polynucleotide referred to in Larossa or Mittman would have testosterone or progesterone hydroxylase activity. Accordingly, claim 1 and dependent claims 4-7, 12, 13, 37, 39 and 40 are not anticipated by Larossa or Mittman. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

CONCLUSION

Applicants submit that the application as amended is in condition for allowance, and request early, favorable action. The Examiner is invited to telephone the undersigned to discuss any issue pertaining to this reply.

Respectfully submitted,

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